F Harma



PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/968,800

DATE: 04/15/1999

TIME: 11:14:59

Input Set: H968800.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

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 1
     <120> TITLE OF INVENTION: A NOVEL EGF MOTIF PROTEIN OBTAINED FROM
           A CDNA LIBRARY OF FETAL LIVER-SPLEEN
     <130> FILE REFERENCE: 20411-720
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     <141> CURRENT FILING DATE: 1997-11-22
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11
12
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19
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21
           Gly Trp Arg Arg Asn Ser Lys Gly Val Cys Glu Ala Thr Cys Glu Pro
22
            1
                            5
                                                                                    96
23
           gga tgt aag ttt ggt gag tgc gtg gga cca aac aaa tgc aga tgc ttt
           Gly Cys Lys Phe Gly Glu Cys Val Gly Pro Asn Lys Cys Arg Cys Phe
24
25
                        20
                                             25
           cca gga tac acc ggg aaa acc tgc agt caa gat gtg aat gag tgt gga
                                                                                  144
           Pro Gly Tyr Thr Gly Lys Thr Cys Ser Gln Asp Val Asn Glu Cys Gly
27
28
                                                                                  192
29
           atg aaa ccc cgg cca tgc caa cac aga tgt gtg aat aca cac gga agc
           Met Lys Pro Arg Pro Cys Gln His Arg Cys Val Asn Thr His Gly Ser
30
31
                                                                                  240
           tac aag tgc ttt tgc ctc agt ggc cac atg ctc atg cca gat gct acg
32
           Tyr Lys Cys Phe Cys Leu Ser Gly His Met Leu Met Pro Asp Ala Thr
33
                                 70
                                                     75
            65
           tgt gtg aac tcn agg aca tgt gcc atg ata aac tgt cag tat agc tgt
                                                                                  288
35
           Cys Val Asn Xaa Arg Thr Cys Ala Met Ile Asn Cys Gln Tyr Ser Cys
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                                                                      95
37
                            85
                                                 90
38
                                                                                  300
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39
           Glu Asp Thr Glu
40
                       100
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41
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43
     <212> TYPE: DNA
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w- 6)(

44

<213> ORGANISM: Homo sapiens

PAGE:

## RAW SEQUENCE LISTING

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<220> FEATURE: <221> NAME/KEY: CDS <222> LOCATION: (1)...(1506) <221> NAME/KEY: misc feature <222> LOCATION: (1)...(1611) <223> OTHER INFORMATION: n = A, T, C or G <400> SEQUENCE: 2 ggc tgg aga aga aac agc aag gga gtc tgt gaa gct aca tgc gaa cct Gly Trp Arg Arg Asn Ser Lys Gly Val Cys Glu Ala Thr Cys Glu Pro gga tgt aag ttt ggt gag tgc gtg gga cca aac aaa tgc aga tgc ttt Gly Cys Lys Phe Gly Glu Cys Val Gly Pro Asn Lys Cys Arg Cys Phe cca gga tac acc ggg aaa acc tgc agt caa gat gtg aat gag tgt gga Pro Gly Tyr Thr Gly Lys Thr Cys Ser Gln Asp Val Asn Glu Cys Gly atq aaa ccc cgg cca tgc caa cac aga tgt gtg aat aca cac gga agc Met Lys Pro Arg Pro Cys Gln His Arg Cys Val Asn Thr His Gly Ser tac aag tgc ttt tgc ctc agt ggc cac atg ctc atg cca gat gct acg Tyr Lys Cys Phe Cys Leu Ser Gly His Met Leu Met Pro Asp Ala Thr tgt gtg aac ten agg aca tgt gee atg ata aac tgt cag tat age tgt Cys Val Asn Xaa Arg Thr Cys Ala Met Ile Asn Cys Gln Tyr Ser Cys gaa gac aca gaa gaa ggg cca cag tgc ctg tgt cca tcc tca gga ctc Glu Asp Thr Glu Glu Gly Pro Gln Cys Leu Cys Pro Ser Ser Gly Leu cgc ctg gcc cca aat gga aga gac tgt cta gat att gat gaa tgt gcc Arg Leu Ala Pro Asn Gly Arg Asp Cys Leu Asp Ile Asp Glu Cys Ala tct ggt aaa gtc atc tgt ccc tac aat cga aga tgt gtg aac aca ttt Ser Gly Lys Val Ile Cys Pro Tyr Asn Arg Arg Cys Val Asn Thr Phe gga agc tac tac tgc aaa tgt cac att ggt ttc gaa ctg caa tat atc Gly Ser Tyr Tyr Cys Lys Cys His Ile Gly Phe Glu Leu Gln Tyr Ile agt gga cga tat gac tgt ata gat ata aat gaa tgt act atg gat agc Ser Gly Arg Tyr Asp Cys Ile Asp Ile Asn Glu Cys Thr Met Asp Ser cat acg tgc agc cac cat gcc aat tgc ttc aat acc caa ggg tcc ttc His Thr Cys Ser His His Ala Asn Cys Phe Asn Thr Gln Gly Ser Phe aag tgt aaa tgc aag cag gga tat aaa ggc aat gga ctt cgg tgt tct Lys Cys Lys Cys Lys Gln Gly Tyr Lys Gly Asn Gly Leu Arg Cys Ser gct atc cct gaa aat tct gtg aag gaa gtc ctc aga gca cct ggt acc Ala Ile Pro Glu Asn Ser Val Lys Glu Val Leu Arg Ala Pro Gly Thr atc aaa gac aga atc aag aag ttg ctt gct cac aaa aac agc atg aaa 

w-->0

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## RAW SEQUENCE LISTING PATENT APPLICATION US/08/968,800

Input Set: H968800.RAW

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96	225					230					235					240	
97	aag	aag	gca	aaa	att	aaa	aat	gtt	acc	cca	gaa	CCC	acc	agg	act	cct	768
98	Lys	Lys	Ala	Lys	Ile	Lys	Asn	Val	Thr	Pro	Glu	Pro	Thr	Arg	Thr	Pro	
99					245					250					255		
100	acc	cct	aag	gtg	aac	ttg	cag	CCC	ttc	aac	tat	gaa	gag	ata	gtt	tcc	816
101	Thr	Pro	Lys	Val	Asn	Leu	Gln	Pro	Phe	Asn	Tyr	Glu	Glu	Ile	Val	Ser	
102				260					265					270			
103	aga	ggc	ggg	aac	tct	cat	gga	ggt	aaa	aaa	ggg	aat	gaa	gag	aaa	atg	864
104	Arg	Gly	Gly	Asn	Ser	His	Gly	Gly	Lys	Lys	Gly	Asn	Glu	Glu	Lys	Met	
105			275					280					285				
106						_			-	-	gag		_				912
107	Lys	Glu	Gly	Leu	Glu	Asp	Glu	Lys	Arg	Glu	Glu	Lys	Ala	Leu	Lys	Asn	
108		290					295					300					
109	_		-		_	_	_			_	gtg						960
110	Asp	Ile	Glu	Glu	Arg		Leu	Arg	Gly	Asp	Val	Phe	Phe	Pro	Lys		
111	305					310					315					320	
112											gtc						1008
113	Asn	Glu	Ala	Gly		Phe	Gly	Leu	Ile		Val	Gln	Arg	Lys		Leu	
114					325					330					335		
115				_	_			_			atc	_	-	_	_	_	1056
116	Thr	Ser	Lys		Glu	His	Lys	Asp		Asn	Ile	Ser	Val	_	Cys	Ser	
117				340					345					350			
118						_	_			_	gat	_	-	_	_		1104
119	Phe	Asn		Gly	Ile	Cys	Asp	_	Lys	GIn	Asp	Arg		Asp	Asp	Phe	
120			355					360					365				1150
121	_				-	-	_	-		_	att				_	_	1152
122	Asp	_	Asn	Pro	Ата	Asp	_	Asp	ASI	Ата	Ile	_	Pne	Tyr	Met	Ala	
123	~++	370			~~~	~~+	375	~+ <i>~</i>		~~~	a++	380	~~~	++~		att	1200
124 125	-	-	-	_							att Ile						1200
126	385	PLO	ніа	neu	Ата	390	птэ	Mec	пуз	Asp	395	Gry	Arg	пец	цуз	400	
127		cta	aat	a a c	cta		ccc	caa	age	220	ttc	tat	tta	ctc	+++		1248
128				_	_				_		Phe		_				1240
129	шеи	Бец	110	тор	405	0111	110	0111	DCI	410	1110	Cyb	LCu	шси	415	nop	
130	tac	caa	cta	מככ		gac	aaa	atc	aaa		ctt	cga	äta	ttt		aaa	1296
131											Leu						2234
132	- 7 -	9		420	<b>U</b>		_,_		425	-75		3		430		-10	
133	aac	aαt	aac		acc	ata	gga	t.aa		ааσ	acc	acσ	agt.		gat	gaa	1344
134											Thr						
135		501	435					440		-1-			445				
136	aaσ	t.aa		aca	aaa	aaa	att		tta	tat	caa	σσa		σat	act	acc	1392
137	_		_					-	_		Gln						
138	- <u>,</u>	450	4 -	<del>-</del>	- 4	4	455					460					
139	aaa		atc	att	ttt	gaa	qca	gaa	cqt	ggc	aag	ggc	aaa	acc	ggc	gaa	1440
140		_				_	-	-			Lys						
141	465					470			_	-	475	-	_		_	480	•
142		gca	gtg	gat	ggc	gtc	ttg	ctt	gtt	tca	ggc	tta	tgt	cca	gat	agc	1488
143		-	-	-		_	_		-		Gly						
144				-	485					490	_		•		495		

PAGE: 4 RAW SEQUENCE LISTING DATE: 04/15/1999

PATENT APPLICATION US/08/968,800 TIME: 11:14:59

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Ser Gly Lys Val Ile Cys Pro Tyr Asn Arg Arg Cys Val Asn Thr Phe

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Input Set: H968800.RAW

,													_			
195		130					135					140				
196	Glv		Tyr	Tyr	Cys	Lys		His	Ile	Gly	Phe	Glu	Leu	Gln	Tyr	Ile
197	145		- 4 -	- 4 -		150	- 2			- 1	155				- 3	160
198	Ser	Gly	Arg	Tyr	Asp	Cys	Ile	Asp	Ile	Asn	Glu	Cys	Thr	Met	Asp	Ser
199		_	_	-	165	-		_		170		-			175	
200	His	Thr	Cys	Ser	His	His	Ala	Asn	Cys	Phe	Asn	Thr	Gln	Gly	Ser	Phe
201			-	180		٠			185					190		
202	Lys	Cys	Lys	Cys	Lys	Gln	Gly	Tyr	Lys	Gly	Asn	Gly	Leu	Arg	Cys	Ser
203	•	=	195	-	_		_	200	_				205	_	_	
204	Ala	Ile	Pro	Glu	Asn	Ser	Val	Lys	Glu	Val	Leu	Arg	Ala	Pro	Gly	Thr
205		210					215					220				
206	Ile	Lys	Asp	Arg	Ile	Lys	Lys	Leu	Leu	Ala	His	Lys	Asn	Ser	Met	Lys
207	225					230					235					240
208	Lys	Lys	Ala	Lys	Ile	Lys	Asn	Val	Thr	Pro	Glu	Pro	Thr	Arg	Thr	Pro
209					245					250					255	
210	Thr	Pro	Lys	Val	Asn	Leu	Gln	Pro	Phe	Asn	Tyr	Glu	Glu	Ile	Val	Ser
211				260					265					270		
212	Arg	Gly	Gly	Asn	Ser	His	Gly	Gly	Lys	Lys	Gly	Asn	Glu	Glu	Lys	Met
213			275					280					285			
214	Lys	Glu	Gly	Leu	Glu	Asp	Glu	Lys	Arg	Glu	Glu	Lys	Ala	Leu	Lys	Asn
215		290					295					300				
216	Asp	Ile	Glu	Glu	Arg	Ser	Leu	Arg	Gly	Asp	Val	Phe	Phe	Pro	Lys	Val
217	305					310					315					320
218	Asn	Glu	Ala	Gly		Phe	Gly	Leu	Ile		Val	Gln	Arg	Lys	Ala	Leu
219		_	_		325	•	_	_	_	330		_		_	335	_
220	Thr	Ser	Lys		Glu	His	Lys	Asp		Asn	Ile	Ser	Val	_	Cys	Ser
221			1	340		_	_		345	~-3	_	_		350		-1
222	Phe	Asn		GIY	Пе	Cys	Asp		ьуs	GIn	Asp	Arg		Asp	Asp	Pne
223			355	<b>n</b>		3	•	360	3	77-	<b>-</b> 1-	<b>a</b> 3	365	<b></b>	38-6	21-
224	Asp		ASII	Pro	Ата	Asp		Asp	ASII	Ala	тте		Pne	Tyr	Met	Ата
225	170 1	370	77.	T 0	77.	~1··	375	Mot	T	7 02	T1.	380	7 ~~~	T 011	T	T 011
226		PIO	ALA	ьeu	Ala	390	nis	Met	пЛя	Asp	395	GIY	Arg	ьeu	Lys	400
227	385	T 011	Dro	7 cm	T 011		Dro	Cln	802	Λcn		Cvc	Leu	Lau	Phe	
228 229	Deu	цец	PIO	Asp	405	GIII	FIO	GIII	Ser	410	FIIC	Cys	шеα	пси	415	ASD
	Туг	Δνα	T.011	Δla		Δen	T.ve	Va l	Glv		T.e.11	Δrα	Val	Dhe	Val	Lvg
230 231	TYL	Arg	пец	420	Gry	Asp	цуз	vai	425	цуз	Dea	r. a	vai	430	vai	пуз
232	Δen	Ser	Δsn		Δla	T.e.ii	Δla	Trn		Lvs	Thr	Thr	Ser		Asp	Glu
233	11011	501	435					440		-1-			445		р	
234	Lvs	Trp		Thr	Glv	Lvs	Ile	_	Leu	Tvr	Gln	Glv		Asp	Ala	Thr
235	-1-	450	-1 -		1	-1-	455			3		460				
236	Lvs		Ile	Ile	Phe	Glu	Ala	Glu	Arg	Gly	Lys	Gly	Lys	Thr	Gly	Glu
237	465					470			_	_	475	-	-		-	480
238	Ile	Ala	Val	Asp	Gly	Val	Leu	Leu	Val	Ser	Gly	Leu	Cys	Pro	Asp	Ser
239				_	485					490	_		_		495	
240	Leu	Leu	Ser	Val	Asp	Asp	Xaa	Met	Val	Leu	Ser	Leu	Tyr	Leu	Thr	Leu
241				500	_				505					510		
242	Tyr	Val	Ser	Ser	Leu	Val	Phe	Leu	Ile	Leu	His	His	Arg	Thr	Ser	Gly
243	_		515					520					525		/	
244	Ile	Leu	Lys	Leu	Leu	Ala	Glu	Lys	Leu							
Please Note:						•		1	D4			١.			//	
Use of n and/or	XXX DAYC	DOCT	oct∝	ted in	ine S	edner	ice II	sudg.	. FICE	56 FEI -1 hal	ILW L	~22A	<b>.</b>	•		
Secuence I Itlin	P IO CASUL	e insi	Z COL	TCSDO	noine	CXDII	LBRUC	a 13 t	$\pi \omega \omega$	rca 14	TOC .	ヘメムリ	<i>-</i> 10			

Use of n and/or Xan have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xan.

PAGE:

VERIFICATION SUMMARY
PATENT APPLICATION US/08/968,800

DATE: 04/15/1999 TIME: 11:14:59

Input Set: H968800.RAW

Line	?	Error/Warning							Original Text										
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145	W	"N"	or	"Xaa"	used:	Feature	required	ctt	tta	tct	gtg	gan	nnc	tgaa	tggt	ac t	atct	t	
240	W	"N"	or	"Xaa"	used:	Feature	required	Leu	Leu	Ser	Val	Asp	Asp	Xaa	Met	Val	Leu	S	
255	W	"N"	or	"Xaa"	used:	Feature	required	Ile	Asp	Glu	Cys	Xaa	Ser	Asn	Pro	Cys	Gln	Α	
257	W	"N"	or	"Xaa"	used:	Feature	required	Xaa	Xaa	Asp	Xaa	Val	Gly	Ser	Tyr	Xaa	Cys	X	
259	W	"N"	or	"Xaa"	used:	Feature	required	Thr	Gly	Lys	Xaa	Xaa	Xaa	Cys	Glu	Xaa	Asn		
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313	W	"N"	or	"Xaa"	used:	Feature	required	Xaa	Cys	Xaa	Asn	Thr	Val	Gly	Ser	Tyr	Xaa	С	
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330	W	"N"	or	"Xaa"	used:	Feature	required	Cys	Val	Val	Gly	Tyr	Ile	Xaa	Xaa	Xaa	Gly	G	
							required	cctt	tttr	itt t	ttgg	J							
361	W	"N"	or	"Xaa"	used:	Feature	required	ccaaaanaa aaagg											